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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/030,729 | 06/20/2002 | Ronald Johnston Hill | 53-99A | 8254 |

23713 7590 10/06/2005

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EXAMINER

PAK, MICHAEL D

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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1646

DATE MAILED: 10/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/030,729

Applicant(s)

HILL ET AL.

Examiner

Michael Pak

Art Unit

1646

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 September 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-74 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-74 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group 1, claim(s) 1-16, in part, 23-24, in part, 40-46, in part, drawn to a nucleic acid encoding the polypeptide of SEQ ID NO: 4, polypeptide of SEQ ID NO: 4, a vector construct and a host cell comprising the vector having a nucleic acid encoding polypeptide of SEQ ID NO: 4.

Group 2-14, claim(s) 1-16, in part, 23-24, in part, 40-46, in part, drawn to nucleic acid sequences encoding poly peptides of SEQ ID NO: 6, 8, 14, 16, 18, 20, 38, 40, 44 and nucleic acid sequences set forth in NM 99/04565, 99/04567, 99/04568, 00/12580, 00/12581.

Group 15-29, claim(s) 17-22, drawn to a method of identifying nucleic acids encoding polypeptides comprising hybridizing genomic DNA, mRNA, or cDNA, and isolating the hybridized DNA.

Group 30-44, claim(s) 25-39, drawn to a polypeptide of SEQ ID NO: 6, 8, 14, 16, 18, 20, 38, 40, 44 and 99/04565, 99/04567, 99/04568, 00/12580, 00/12581.

Group 45, claim(s) 47-54, drawn to a method of identifying a modulator comprising assaying the expression of a reporter system.

Group 46, claim(s) 55-63, drawn to a method of identifying a potential insecticidal compound comprising assaying the binding with a polypeptide.

Group 47, claim(s) 64-68, drawn to identifying a candidate insecticidally active agent.

Group 48, claim(s) 70, drawn to a synthetic compound that interacts with the three dimensional structure of a polypeptide.

Art Unit: 1646

Group 49, claim(s) 71, drawn to a method of identifying a synthetic compound having insecticidal activity.

Group 50-63, claim(s) 72-74, drawn to a hormone binding complex that binds insect cedysteroid.

The inventions listed as Groups 1-63 do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

I. Group 1, recites the special technical feature of a nucleic acid encoding the polypeptide of SEQ ID NO: 4, polypeptide of SEQ ID NO: 4, a vector construct and a host cell comprising the vector having a nucleic acid encoding polypeptide of SEQ ID NO: 4, which is taught by Hunnan, 1998 (see X reference of International search report).

II. Group 2-14, recites the special technical feature of a to nucleic acid sequences encoding poly peptides of SEQ ID NO: 6, 8, 14, 16, 18, 20, 38, 40, 44 and nucleic acid sequences set forth in NM 99/04565, 99/04567, 99/04568, 00/12580, 00/12581, a vector and a host cell, which is not required by other products of Groups 1, 30-44, 48, 50-63.

III. Group 15-29, recites the special technical feature of identifying nucleic acids encoding polypeptides comprising hybridizing genomic DNA, mRNA, or cDNA and isolating the hybridized DNA, which is not required by other methods of Groups 45-47, 49.

IV. Groups 30-44, recites the special technical feature of a poly peptide of SEQ ID NO: 6, 8, 14, 16, 18, 20, 38, 40, 44 and 99/04565, 99/04567, 99/04568, 00/12580, 00/12581, which is not required by other product of Group 1, 15-29, 48, 50-63.

V. Group 45, recites the special technical feature of identifying a modulator comprising assaying the expression of a reporter system, which is not required by other methods of Groups 15-29, 46-47, 49.

VI. Group 46, recites the special technical feature of identifying a potential insecticidal compound comprising assaying the binding with a polypeptide, which is not required by other methods of Groups 15-29, 45,47, 49.

VII. Group 47, recites the special technical feature of identifying a candidate insecticidally active agent, which is not required by other methods of Groups 15-29, 45,46, 49.

VIII. Group 48, recites the special technical feature of a synthetic compound that interacts with the three dimensional structure of a polypeptide, which is not required by other product of Group 1, 15-29, 30-44, 50-63.

IX. Group 49, recites the special technical feature of identifying a synthetic compound having insecticidal activity, which is not required by other methods of Groups 15-29, 45-47.

Art Unit: 1646

X. Groups 50-63, recite the special technical feature of a polypeptide of a hormone binding complex that binds insect cedysteroid, which is not required by other product of Group 1, 15-29, 30-44, and 48A

The examiner has required restriction between product and process claims. Where applicant elects claims directed to the product, and a product claim is subsequently found allowable, withdrawn process claims that depend from or otherwise include all the limitations of the allowable product claim will be rejoined in accordance with the provisions of MPEP § 821.04. **Process claims that depend from or otherwise include all the limitations of the patentable product** will be entered as a matter of right if the amendment is presented prior to final rejection or allowance, whichever is earlier. Amendments submitted after final rejection are governed by 37 CFR 1.116; amendments submitted after allowance are governed by 37 CFR 1.312.

In the event of rejoinder, the requirement for restriction between the product claims and the rejoined process claims will be withdrawn, and the rejoined process claims will be fully examined for patentability in accordance with 37 CFR 1.104. Thus, to be allowable, the rejoined claims must meet all criteria for patentability including the requirements of 35 U.S.C. 101, 102, 103, and 112. Until an elected product claim is found allowable, an otherwise proper restriction requirement between product claims and process claims may be maintained. Withdrawn process claims that are not commensurate in scope with an allowed product claim will not be rejoined. See "Guidance on Treatment of Product and Process Claims

Art Unit: 1646

in light of *In re Ochiai*, *In re Brouwer* and 35 U.S.C. § 103(b)," 1184 O.G. 86 (March 26, 1996). Additionally, in order to retain the right to rejoinder in accordance with the above policy, Applicant is advised that the process claims should be amended during prosecution either to maintain dependency on the product claims or to otherwise include the limitations of the product claims. **Failure to do so may result in a loss of the right to rejoinder.** Further, note that the prohibition against double patenting rejections of 35 U.S.C. 121 does not apply where the restriction requirement is withdrawn by the examiner before the patent issues. See MPEP § 804.01.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

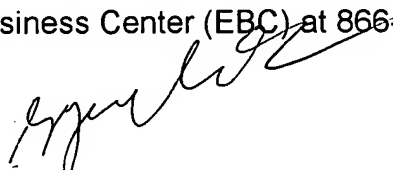
Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Art Unit: 1646


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Pak whose telephone number is 571-572-0879. The examiner can normally be reached on 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Caputa can be reached on (571) 272-0829. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Gyan Chandra, Ph.D.
Art Unit 1646
03 October 2005



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